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CHEMICAL PRODUCT AND COMPANY INFORMATION

REVISION DATE: 07/28/1994
UN NUMBER- UN1219

PRIMARY APPLICATION- GASLINE ANTIFREEZE

MANUFACTURER- SUN COMPANY, INC.
TEN PENN CENTER
1801 MARKET STREET
PHILADELPHIA PA 19103-1699SYNONYMS.....: GASLINE ANTIFREEZE
CAS REGISTRY NO: 67-63-0
CAS NAME.....: ISOPROPYL ALCOHOL
CHEMICAL FAMILY: ALIPHATIC ALCOHOL
INFORMATIONSUPPLIER... MARIA DAYRIT
PHONE.....: (215) 246-8201

EMERGENCY PHONE NUMBERS (AFTER NORMAL BUSINESS HOURS)

SUN CO.. 1-800-964-8861

CHEMTREC. 1-800-424-9300

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2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT/CAS NO.	LO%	HI%	OSHA		EXPOSURE GUIDELINES		SUN/MFR		UNIT
			TWA	STEL	ACGIH	STEL	TWA	STEL	
LIMITS FOR THE PRODUCT:									
NO SPECIFIC LIMIT									
ISOPROPYL ALCOHOL									
67-63-0	.00	100.0	400	500	400	500			PPM

ADDITIONAL EXPOSURE LIMITS ----- GOVERNMENT REGULATION
OTHER LIMIT- SEE SECTION 2

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3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW -----

DANGER! FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED. HIGH VAPOR
CONCENTRATIONS MAY CAUSE DIZZINESS. MAY CAUSE EYE IRRITATION. HARMFUL OR
FATAL IF SWALLOWED. PULMONARY ASPIRATION HAZARD-CAN ENTER LUNGS AND
CAUSE DAMAGE.

APPEARANCE-- COLORLESS LIQUID ODOR-- ALCOHOL

POTENTIAL HEALTH EFFECTS -----

PRIMARY ROUTES OF ENTRY- INHALATION(X) SKIN(X) EYE(X) INGESTION(X)

INHALATION -----
LC50 IN RATS IS: 12000 PPM, TIME 8 HRS. EXCESSIVE EXPOSURES MAY CAUSE IRRITATION TO EYES, NOSE, THROAT, LUNGS; RESPIRATORY TRACT; CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS; HEADACHES, NAUSEA; DIZZINESS, LOSS OF BALANCE AND COORDINATION; UNCONSCIOUSNESS, COMA; RESPIRATORY FAILURE AND DEATH.

SKIN -----
SKIN ABSORPTION OF MATERIAL MAY PRODUCE SYSTEMIC TOXICITY. MAY CAUSE MILD TO MODERATE IRRITATION WITH PROLONGED OR REPEATED CONTACT. REMOVES NATURAL OILS & FATS FROM SKIN. DERMAL LD50 IN RABBITS IS: 13000 MG/KG.

EYE -----
CONTACT WITH THE EYE MAY CAUSE MODERATE IRRITATION. CORNEAL DAMAGE OR OPACITY.

INGESTION -----
HARMFUL OR FATAL IF SWALLOWED. ORAL LD50 IN RATS IS: 5.05 G/KG. PULMONARY ASPIRATION HAZARD IF SWALLOWED AND/OR VOMITING OCCURS - CAN ENTER LUNGS AND CAUSE DAMAGE.

CARCINOGEN LISTED BY-IARC(NO) NTP(NO) OSHA(NO) ACGIH(NO) OTHER(NO)
PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE-
RESPIRATORY, PULMONARY AND LUNG DISORDERS (E.G. ASTHMA-LIKE CONDITION)

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4. FIRST AID MEASURES

INHALATION -----
MOVE PERSON TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION
OBTAIN MEDICAL ASSISTANCE.

SKIN -----
WASH WITH SOAP AND WATER UNTIL NO ODOR REMAINS. IF REDNESS OR SWELLING DEVELOPS, OBTAIN MEDICAL ASSISTANCE. IMMEDIATELY REMOVE SOAKED CLOTHING. WASH CLOTHING BEFORE REUSE. DESTROY CONTAMINATED SHOES.

EYE -----
FLUSH WITH WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, OBTAIN MEDICAL ASSISTANCE.

INGESTION -----
DO NOT INDUCE VOMITING! DO NOT GIVE LIQUIDS! OBTAIN EMERGENCY MEDICAL ATTENTION. SMALL AMOUNTS WHICH ACCIDENTALLY ENTER MOUTH SHOULD BE RINSED OUT UNTIL TASTE OF IT IS GONE.

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5. FIRE FIGHTING MEASURES

FLASH POINT: 53 (CC) (DEG. F); 11.7 (CC) (DEG. C)
AUTOIGNITION TEMP.: 750 (DEG. F); 399 (DEG. C)

---FLAMMABLE LIMITS IN AIR---
LOWER EXPLOSIVE LIMIT (LEL): 2.0 % VOLUME
UPPER EXPLOSIVE LIMIT (UEL): 11.8 % VOLUME

FIRE AND EXPLOSION HAZARDS -----
FLAMMABLE LIQUID (FLASH POINT LESS THAN 100F)

EXTINGUISHING-MEDIA -----

WATER SPRAY. ALCOHOL RESISTANT FOAM. DRY CHEMICAL. CARBON DIOXIDE.

SPECIAL FIRE FIGHTING INSTRUCTIONS -----

USE WATER SPRAY. COOL TANK/ CONTAINER. WEAR SELF-CONTAINED BREATHING APPARATUS. WEAR STRUCTURAL FIREFIGHTERS PROTECTIVE CLOTHING.

NFPA/HMIS CLASSIFICATION

HEALTH - 1 / 1

FIRE - 3 / 3

REACTIVITY - 0 / 0

PERSONAL PROTECTION INDEX - X

HAZARD RATING

0=LEAST 1=SLIGHT

2=MODERATE 3=HIGH

4=EXTREME

SPECIFIC HAZARD: FLAMMABLE

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6. ACCIDENTAL RELEASE MEASURES

PREVENT IGNITION; STOP LEAK; VENTILATE AREA. CONTAIN SPILL. USE PERSONAL PROTECTIVE EQUIPMENT STATED IN SECTION 8. ADVISE EPA; STATE AGENCY IF REQUIRED. ABSORB ON INERT MATERIAL. SHOVEL, SWEEP OR VACUUM SPILL.

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7. HANDLING AND STORAGE

KEEP AWAY FROM HEAT, SPARKS AND FLAME. KEEP IN COOL, DRY PLACE. KEEP CONTAINER TIGHTLY CLOSED. KEEP IN WELL VENTILATED SPACE. NFPA CLASS IB STORAGE. CONSULT NFPA AND OSHA CODES. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. AVOID CONTACT WITH EYES. WASH THOROUGHLY AFTER HANDLING.

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8. EXPOSURE CONTROL / PERSONAL PROTECTION

CONSULT WITH A HEALTH/SAFETY PROFESSIONAL FOR SPECIFIC SELECTION.

VENTILATION -----

USE ONLY WITH ADEQUATE VENTILATION. VENTILATE AS NEEDED TO COMPLY WITH EXPOSURE LIMIT. GENERAL DILUTION VENTILATION ACCEPTABLE. EXPLOSION PROOF VENTILATION EQUIPMENT REQUIRED.

PERSONAL PROTECTIVE EQUIPMENT -----

EYE -----

SPLASH PROOF CHEMICAL GOGGLES OR FULL FACE SHIELD RECOMMENDED TO PROTECT AGAINST SPLASH OF PRODUCT.

GLOVES -----

PROTECTIVE GLOVES RECOMMENDED WHEN PROLONGED SKIN CONTACT CANNOT BE AVOIDED.

RESPIRATOR -----

CONCENTRATION-IN-AIR DETERMINES PROTECTION NEEDED. USE ONLY NIOSH CERTIFIED RESPIRATORY PROTECTION.

OTHER -----

IF CONTACT IS UNAVOIDABLE, WEAR CHEMICAL RESISTANT CLOTHING. SAFETY SHOWER AND EYE WASH AVAILABILITY RECOMMENDED. LAUNDRY SOILED CLOTHES. FOR NON-FIRE EMERGENCIES, POSITIVE PRESSURE SELF-CONTAINED BREATHING

APPARATUS (SCBA) & STRUCTURAL FIREFIGHTERS' PROTECTIVE CLOTHING WILL
PROVIDE LIMITED PROTECTION.

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9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT.....: 180 (DEG. F) _____ 82 (DEG. C)
MELTING POINT.....: -129 (DEG. F) _____ -89 (DEG. C)
SPECIFIC GRAVITY.....: 0.79 (WATER=1)
PACKING DENSITY.....: N/A (KG/M3)
VAPOR PRESSURE.....: 33 (MM HG @ 20 DEG C)
VAPOR DENSITY.....: 2.1 (AIR=1)
SOLUBILITY IN WATER..: SOLUBLE (% BY VOLUME)
PH INFORMATION.....: N.D. AT CONC. N.D. G/L H2O
% VOLATILES BY VOL...: 100%
EVAPORATION RATE.....: 2.4X SLOWER (ETHYL ETHER=1)
OCTANOL/WATER COEFF.: N.D.
APPEARANCE.....: COLORLESS LIQUID
ODOR.....: ALCOHOL
ODOR THRESHOLD.....: 50 (PPM)
VISCOSITY.....: N.D. SUS @ N.D DEG F ... N.D. CST @ N.D DEG C
MOLECULAR WEIGHT.....: N.D. (G/MOLE)

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10. STABILITY AND REACTIVITY

STABILITY -----
STABLE.
CONDITIONS TO AVOID-
HEAT, SPARKS AND OPEN FLAME
INCOMPATIBLE MATERIALS -----
STRONG OXIDIZING AGENTS; CHLORINE
HAZARDOUS DECOMPOSITION -----
COMBUSTION MAY PRODUCE CARBON MONOXIDE AND OTHER ASPHYXANTS
POLYMERIZATION -----
WILL NOT OCCUR.

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11. TOXICOLOGICAL INFORMATION

FOR THE PRODUCT -----
INHALATION: OVEREXPOSURE MAY CAUSE EYE, NOSE, THROAT, AND RESPIRATORY
TRACT IRRITATION, CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS, DIZZINESS,
COMA, OR DEATH. SKIN: MILD TOXICITY. PROLONGED/REPEATED CONTACT MAY
CAUSE MODERATE IRRITATION. EYE: MODERATE IRRITANT ON CONTACT. MAY
CAUSE CORNEAL INJURY. INGESTION: SLIGHTLY TOXIC. LD50 (RAT) 8G/KG. MAY
CAUSE HEADACHE, DEPRESSION, COMA, SHOCK. AT HIGH DOSES MAY CAUSE
RESPIRATORY FAILURE, DEATH. HARMFUL OR FATAL IF SWALLOWED AND/OR
VOMITING OCCURS BECAUSE IT CAN ENTER THE LUNGS AND CAUSE DAMAGE DUE TO
PULMONARY ASPIRATION HAZARD.

ISOPROPYL ALCOHOL (COMPONENT)
INHALATION: OVEREXPOSURE MAY CAUSE EYE, NOSE, THROAT, AND RESPIRATORY
TRACT IRRITATION, CENTRAL NERVOUS SYSTEM (BRAIN) EFFECTS, DIZZINESS,
COMA. SKIN: PRACTICALLY NON-TOXIC IF ABSORBED. LD50 (RABBIT) 12.8 G/KG

PROLONGED/REPEATED CONTACT MAY CAUSE MODERATE IRRITATION & DERMATITIS.
EYE: CONTACT MAY CAUSE SEVERE IRRITATION & CORNEAL INJURY. ORAL:
MODERATELY TOXIC. LD50 (RAT) 5.045 G/KG. HARMFUL/FATAL IF SWALLOWED.
INGESTION MAY CAUSE GASTROINTESTINAL TRACT IRRITATION, CNS EFFECTS.
THE SINGLELETHAL DOSE FOR HUMAN ADULT IS ABOUT 250 ML, ALTHOUGH AS
LITTLE AS 100 ML CAN BE FATAL; REPORTS OF SERIOUS ILLNESS FROM AS
LITTLE AS 10 ML; BIRTH DEFECTS & REPRODUCTIVE EFFECTS FOUND IN ANIMALS

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12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY -----

NO DATA AVAILABLE.

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13. DISPOSAL CONSIDERATIONS

FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS. RCRA HAZARDOUS WASTE. DO
NOT FLUSH TO DRAIN/ STORM SEWER. CONTRACT TO AUTHORIZED DISPOSAL
SERVICE.

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14. TRANSPORTATION INFORMATION

DOT-
PROPER SHIPPING NAME- NOT REGULATED
HAZARD CLASS- NOT REGULATED
IDENTIFICATION NUMBER- NOT REGULATED
LABEL REQUIRED- NOT REGULATED

IMDG- PROPER SHIPPING NAME- NO DATA AVAILABLE

IATA- PROPER SHIPPING NAME- NO DATA AVAILABLE

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15. REGULATORY INFORMATION

SARA 302 THRESHOLD PLANNING QUANTITY. N/A

SARA 304 REPORTABLE QUANTITY N/A

SARA 311 CATEGORIES- IMMEDIATE (ACUTE) HEALTH EFFECTS.. Y
DELAYED (CHRONIC) HEALTH EFFECTS.. N
FIRE HAZARD Y
SUDDEN RELEASE OF PRESSURE HAZARD. N
REACTIVITY HAZARD N

WHEN A PRODUCT AND/OR COMPONENT IS LISTED BELOW, THE REGULATORY
LIST ON WHICH IT APPEARS IS INDICATED.

ISOPROPYL ALCOHOL - FL MA MN NJ PA 01 04 05

01=SARA 313

02=SARA 302/304

03=IARC CARCINOGEN

04=OSHA CARCINOGEN	05=ACGIH CARCINOGEN	06=NTP CARCINOGEN
07=CERCLA 302.4	08=WHMIS CONTROLLED PROD.	
10=OTHER CARCINOGEN		
PA=PENNSYLVANIA RTK	NJ=NEW JERSEY RTK	CA=CALIFORNIA PROP 65
MA=MASSACHUSETTS RTK	MI=MICHIGAN 406	MN=MINNESOTA RTK
FL=FLORIDA	RI=RHODE ISLAND	IL=ILLINOIS
NY=NEW YORK	WV=WEST VIRGINIA	CT=CONNECTICUT
LA=LOUISIANA	ME=MAINE	OH=OHIO

THIS PRODUCT OR ALL COMPONENTS OF THIS PRODUCT ARE LISTED
ON THE U.S. TSCA INVENTORY.

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16. OTHER INFORMATION

WARNING! FLAMMABLE LIQUID AND VAPOR. KEEP AWAY FROM HEAT, SPARKS AND
OPEN FLAME. KEEP CONTAINER CLOSED. USE WITH ADEQUATE VENTILATION. MAY BE
HARMFUL IF SWALLOWED. DO NOT DRINK. IF SWALLOWED, GIVE ONE OR TWO
GLASSES OF WATER IF PERSON IS CONSCIOUS. NEVER GIVE ANYTHING BY MOUTH TO
AN UNCONSCIOUS PERSON. CALL A PHYSICIAN, EMERGENCY ROOM OR POISON
CONTROL CENTER IMMEDIATELY. EYE IRRITANT. DO NOT GET INTO EYES. IF EYE
CONTACT OCCURS, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST
15 MINUTES. SEEK MEDICAL ATTENTION.